This listing of the claims replaces any and all prior versions and listings of claims in the application:

## LISTING OF THE CLAIMS

1-21. (Cancelled)

22. (Currently amended) A method for administering a therapeutic agent within the central nervous system of a subject, the method comprising intrathecally administering a composition to the central nervous system of said subject, wherein said composition comprises a plurality of biodegradable polymer particles having a therapeutic agent and a buoyancy agent contained therein, wherein the buoyancy agent is a gas or an oil, or a combination thereof, and wherein the composition is controllably buoyant within the cerebrospinal fluid to provide targeted delivery of the therapeutic agent within the central nervous system of the subject.

23. (Original) The method of claim 22, wherein said subject is diagnosed with a central nervous system disorder.

24. (Original) The method of claim 23, wherein said composition is in the form of a plurality of spherical particles from about 1 to about 25 μm in diameter.

25. (Previously presented) The method of claim 23, wherein the therapeutic agent is selected from the group consisting of L-dopa, dopamine, carbidopa, choline, acetyl choline, cholinergic neuronotropic agents, gangliosides, nerve growth enhancing agents, living cells, enzymes, antipsychotropic agents, antidepressants, excitatory amino acid antagonist or agonist, antiepileptic medications, and combinations thereof as well as antioxidants, nonsteroidal anti-inflammatory drugs (NSAIDS), steroidal anti-inflammatory agents, calcium channel blockers, N-methyl-D-aspartate (NMDA) antagonists, inosine, citicholine, superoxide dismutase, dextrorphan, aspirin, tetramethylpyrazine, antibiotics, and combinations thereof.

26. (Previously presented) The method of claim 23 wherein the therapeutic agent is a cancer agent selected from the group consisting of vinca alkaloids and other plant products,

cytostatic drugs, cytotoxic drugs, hormones, alkylating agents, immunomodulators, hematological agents, radiopharmaceuticals, antibodies, antiandrogens, and epidermals.

27. (Previously presented) The method of claim 23, wherein the intrathecal administration occurs directly into the cerebrospinal fluid of the subject.

28. (Previously presented) The method of claim 23, wherein the central nervous system disorder is selected from the group consisting of cancer, Parkinson's disease, Alzheimer's dementia, Huntington's disease, epilepsy, amyotrophic lateral sclerosis, multiple sclerosis, trauma, stroke, traumatic brain injury, depression, spinal cord injury, and pain management.

29. (Previously presented) The method of claim 23, wherein said biodegradable polymer is a naturally derived polymer selected from the group consisting of albumin, alginate, cellulose, collagen, fibrin, gelatin, and polysaccharides.

30. (Original) The method of claim 23, wherein said biodegradable polymer is a synthetic polymer selected from the group consisting of polyesters, polyethylene glycol, poloxomers, polyanhydrides, and pluronics.

31. (Original) The method of claim 23, wherein said synthetic polymer is poly(lactide-co-glycolide).

32-38. (Cancelled).

39. (Previously presented) The method of claim 25, wherein said living cells are selected from bone marrow cells and fetal neural tissue and stem cells, and combinations thereof.

40. (Previously presented) The method of claim 26 wherein said hormones are selected from estrogens and anti-estrogens.

41. (Previously presented) The method of claim 26 wherein said immunomodulators are selected from immunostimulators and immunosuppressives.

42. (Previously presented) The method of claim 22, wherein the buoyancy agent has a specific gravity greater than about 1.0063.

43. (Previously presented) The method of claim 22, wherein the buoyancy agent has a specific gravity less than about 1.0063.

44. (Previously presented) The method of claim 22, wherein the therapeutic agent is a neuroprotective agent and said composition is administered to a subject having a central nervous system disorder.

45. (Previously presented) The method of claim 22, wherein the buoyancy agent is a mixture of oxygen and nitrogen.

46. (Previously presented) The method of claim 22, wherein the buoyancy agent is a hydrofluorocarbon.

47. (Previously presented) The method of claim 22, wherein the buoyancy agent is a gas selected from the group consisting of oxygen, nitrogen, argon, carbon dioxide, helium, and xenon, and combinations thereof.

48. (Previously presented) The method of claim 22, wherein the buoyancy agent is selected from the group consisting of fish oil, vegetable oil, vitamin E oil, PEG, and combinations thereof.

49. (Currently amended) The method of claim 22, wherein the buoyancy agent is ~~selected from~~ a gas~~, a liquid, or a combination thereof~~.

50. (Previously presented) The method of claim 22, wherein the therapeutic agent is selected from omega 3 oils and vitamins.

51. (Canceled)

52. (Currently amended) The method of claim [[51]] 22, wherein the buoyancy agent and the therapeutic agent are vitamin E.

53. (NEW) The method of claim 22, wherein the buoyancy agent is an oil.

54. (NEW) The method of claim 22, wherein the buoyancy agent is a combination of a gas and an oil.